S
CONTROL
Insect
(Annual Report)

Missoula, Montana

May 22, 1944

FOREST SUPERVISORS:

Following is a summary of forest insect conditions as reported by Mr. Evenden in his Annual Forest Insect Status Report for 1943:

Mountain Pine Beetle Infestations in Western White Pine
D. monticolae continues to destroy annually some 90,000 M white pine in R-1; however, no serious conditions now exist. Kootenai has a small heavy infestation resulting from blow-down in 1942. To be controlled in late May or June 1944. Areas on Coeur d'Alene and Clearwater are being watched, with intent to control should the situation become more serious.

Several drainages were visited where severe outbreaks of the beetle have occurred during the last 10 years. It was common to find 50 to 90 percent loss over large areas. Such losses cannot be endured if the lumber industry of the region is to be maintained.

Mountain Pine Beetle in Lodgepole Pine
Light, scattered infestations of no serious importance. In the Orogrande drainage on the Clearwater, lodgepole growing in association with white pine is being killed, but as yet no definite indication that the white pine will be attacked. To be kept under observation.

Western Pine Beetle in Ponderosa Pine
No dangerous infestations recorded during past season.

Douglas-Fir Beetle
Potentially dangerous infestations on the Deerlodge, Flathead, Bitterroot and Gallatin. Should be kept under observation.

Engelmann Spruce Beetle
No serious infestations at present, though some loss in all mature stands of Engelmann spruce, which should not be overlooked.

Larch Sawfly
In many areas severity of infestation seems materially reduced - perhaps due to increased natural enemy population.

Spruce Budworm
Believed that the "red belt" during the winter of 1942-43 may have dealt a death blow to infestations on Gallatin and Helena.

CC - WO
Mr. Evenden

Very truly yours,

A. G. Lindh

A. G. LINDH
Assistant Regional Forester

J. M. T.

EP

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Not worth cost of mimeographing in present length. Can be easily shortened to not in excess of page and 1/2 or 2 with out sacrifice of substance. Maybe can also go on one closely written page.

EK

F.S. R-1
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APR 1 2 1944
TIMBER MANAGEMENT

Mr. Lindh:

I think I got the outstanding points here, if you want to send a report to the forests. It would make about a page and a half, and perhaps could be cut to a page. JMT

(SAN FRANCISCO-6 26-42-5,000)

D-CSW - Clyde would you advise that we mimeograph this for supervisors & rangers. Dem

S-
Control
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Annual Report

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TIMBER MANAGEMENT
F.S.
RECEIVED R-1
APR 8 -
OPERATION

UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

WASHINGTON, D. C.

Agricultural Research Administration
Forest Insect Laboratory
Coeur d'Alene, Idaho

March 29th, 1944

To: Forest Land Managing Agencies - Northern Rocky Mountain Area

From: Forest Insect Laboratory, Coeur d'Alene, Idaho

Subject: Annual Forest Insect Status Report - Idaho and Montana

Military demands for lumber have resulted in an extremely heavy cut of timber from the forests of Idaho and Montana. This increased drain upon the timber resources of these two states has been met with a war-time forestry program with protection as its primary objective. In meeting the responsibility of this program the Coeur d'Alene Laboratory has reemphasized the necessity for reducing to a minimum all insect damage to merchantable timber, through the extension of an adequate entomological service to all land-managing agencies. This service includes the locating and reporting of all destructive bark beetle infestations, the examination of other forest insect outbreaks, assistance in the planning and execution of artificial control measures, as well as any other possible service in the solution of forest insect problems. Due to a reduction in our laboratory personnel our efforts to meet the demands of this service during the past season were badly handicapped, however it is beleived that all potentially dangerous infestations were properly serviced. In compiling this brief statement of forest insect conditions all sources of information have been used, one of the most important being the Annual Forest Rangers Report which provides an overall picture of the entire region.

## Mountain Pine Beetle Infestations in Western White Pine

This important forest insect enemy ( Dendroctonus monticolae ) continues to take an annual toll of some 90,000 M.B.F. from the white pine stands of the region, however no serious conditions exist at this time. On the Kootenai National Forest there is a small spot of heavy infestation which developed from a white pine blow-down in 1942. To eliminate

the threat of this dangerous infestation, artificial control measures will be instituted in late May or June 1944. There are some other situations on the Coeur d'Alene and Clearwater National Forests the potentials of which are fully appreciated. These areas will be watched carefully to permit the institution of artificial control in the event these situations become more serious.

During the past season I had an opportunity to visit a number of white pine drainages where during the past ten years severe outbreaks of the mountain pine beetle have occured. The destruction of merchantable white pine in many of these areas is appalling, as it is not uncommon to travel through large areas where from 50 to 90 percent of the trees have been killed. These losses can not be endured if the lumber industry of the region is to be maintained.

## Mountain Pine Beetle Infestation in Lodgepole Pine

Although there are some light scattered infestations of this insect throughout the mature lodgepole pine stands of the region they are not of serious importance at this time. In the Orogrande drainage of the Clearwater National Forest, lodgepole pine growing in association with western white pine is being killed by the mountain pine beetle, but as yet there is no definate indication that the later species will be attacked. However the danger of such an occurrence necessitates keeping this area under observation to foresee such a condition and to take the necessary steps to prevent unwarranted losses in white pine. On the Minidoka National Forest where a number of potentially dangerous outbreaks of the mountain pine beetle in lodgepole pine have been checked by artificial control during the past ten years or more, a few small spots of rather heavy infestation were treated in the fall of 1943.

## Western Pine Beetle Infestations in Ponderosa Pine

No infestations of this insect ( Dendroctonus brevicomis ) were recorded during the past season which were considered as being dangerous at that time. As infestations of the western pine beetle fluctulate rapidly it is important that mature ponderosa pine stands be watched carefully to be forewarned of the development of more serious conditions

## Douglas Fir Beetle Infestations in Douglas Fir

Infestations of the Douglas Fir Beetle ( Dendroctonus pseudotsugae ) are present in practically all Douglas Fir stands on Idaho and Montana with serious losses occurring in some areas. Potentially dangerous infestations exist on the Deerlodge, Flathead, Bitterroot, and Gallatin National Forests and on the Glacier and Yellowstone National Parks, which should be kept under observation. On the Targhee National Forest, where during the past ten years heavy losses have occurred, the severity of the infestation has decreased to a near normal condition.

## Engelmann Spruce Beetle Infestations in Engelmann Spruce

As the foliage of insect killed spruce falls from the tree a few weeks after it is attacked, and when only slightly faded, the first evidence which one has of the existence of an Engelmann Spruce Beetle Infestation is the presence of what appear to be old dead trees. Even these foliageless tree are often disregarded and considered as being associated with an infestation of some years past. Although we know of no serious spruce beetle infestations such as occurred throughout the region a few years ago, there is some loss in all mature stands, which should not be overlooked if existing stand values are to be protected.

## Larch Sawfly ( Nematus erichsonii ) Infestations

The larch sawfly which was first recorded in the western United States in 1933 has continued to spread in epidemic form throughout all larch stands in the northern Rocky Mountain area. However during the past season it seemed apparent that is many areas the severity of the infestation was materially reduced which may be due to an increased natural enemy population. During the ten years that thisepidemic has been under observation the loss of timber has been quite negligible and confined to small suppressed trees.

## Spruce Budworm ( Harmologa fumiferana ) Infestations

For the past four years there have been infestations of the spruce budworm within the Douglas Fir stands of the Gallatin and Helena National Forests. The defoliation associated with these outbreaks has been heavy and some loss of timber will follow. However the extreme " Montana Red Belt" which occurred during the winter of 1942 - 1943, may have dealt a death blow to these outbreaks. The temperatures responsible for this red belt, not only destroyed the foliage of all tree specieswithin the area, but practically all terminal buds as well, eliminating all 1943 foliage growth. It is assumed that with no new

growth buds in which the small overwintering larvae could start their development in the spring of the year, that the insect population was reduced to a point where only a few adults and only a little 1943 feeding was recorded last season. It is possible that the extreme temperatures may have had a direct influence upon the mortality of the overwintering larvae.

## Miscellaneous Forest Insect Infestations

The western balsam bark beetle ( Dryocoetes confusus ) and the fir engraver beetle ( Scolytus ventralis ) continue to take an annual toll of alpine fir and white fir from the mixed forest stands of the region. This loss of timber is not overly serious as both tree species constitute primary forest types, and as old trees are killed they are in most instances replaced with trees of the same species. Considerable spot killing of ponderosa pine reproduction and small trees by the Oregon Pine engraver ( Ips oregoni ) is still associated with abnormal accumulations of slash. These outbreaks are short lived and by the time the damage is observed the danger of further loss is usually past. Tip moths ( Rhyacionia sp. ) are still active as an important enemy of ponderosa pine reproduction on the Custer National Forest. The lodgepole needle tier ( Argyrotaenia pinatubana ) is still active in the Yellowstone National Park and one or two other areas, where under favorable conditions it becomes an important enemy of lodgepole pine reproduction. The Engelmann Spruce Weevil ( Pissodes engelmanni ) is still doing considerable damage on the Custer National Forest by destroying the terminal leaders of spruce reproduction. Forest tent caterpillars ( Malacosoma disstria ) defoliated large areas of broad leaf forest trees on the Coeur d'Alene and Cabinet National Forests.

We are glad ~~that~~ we are able to report that to the best of our knowledge there are no serious forest insect infestations within the states of Idaho and Montana at this time. During the coming season we will do our best to again provide an adequate entomological service to all land managing agencies in the solution of forest insect problems.

James C. Evenden.